



SEQUENCE LISTING

<110> Hawiger, Daniel
Steinman, Ralph
Nussenzweig, Michel

<120> Enhanced Antigen Delivery and Modulation
of the Immune System Therefrom

<130> 600-1-081CONCIP

<140> 09/925,284
<141> 2001-08-09

<150> 09/586,704
<151> 2000-06-05

<150> 08/381,528
<151> 1995-01-31

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tcttcaga gagggtgaga ggaccatttc gatcgatcac tcgcccggcga tttgata 57

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ctagcgacat ggccaagaag gagacagtct ggaggctcga ggagttcggt aggttcacaa 60
acaggaac 68

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acagacggta gcacagacta tggattctc cagattaaca gcaggtatta tgacggtagg 60
acatgatagg c 71

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gtctgtgttc ctgttgtga acctaccgaa ctcctcgagc ctccagactg tctccttctt 60
ggccatgtcg 70

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ggccgcctat catgtcctac cgtcataata cctgctgtta atctggagaa taccatagtc 60
tgtgctacc 69

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<211> 30
<212> PRT
<213> Homo sapiens

<220>
<223> carboxy terminal DEC-205

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Arg His Arg Leu His Leu Ala Gly Phe Ser Ser Val Arg Tyr Ala Gln
1 5 10 15
Gly Val Asn Glu Asp Glu Ile Met Leu Pro Ser Phe His Asp
20 25 30

<210> 8
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<213> mus musculus

<220>

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<400> 8

Ser Glu Ser Ser Gly Asn Asp Pro Phe Thr Ile Val His Glu Asn Thr
1 5 10 15
Gly Lys Cys Ile Gln Pro Leu Phe Asp
20 25

<210> 9

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<213> mus musculus

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Ser Glu Ser Ser Gly Asn Asp Pro Phe Thr Ile Val His Glu Asn Thr
1 5 10 15
Gly Lys Cys

<210> 10

<211> 1723

<212> PRT

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<220>

<223> predicted DEC-205

<400> 3

Met Arg Thr Gly Arg Val Thr Pro Gly Leu Ala Ala Gly Leu Leu Leu
1 5 10 15
Leu Leu Leu Arg Ser Phe Gly Leu Val Glu Pro Ser Glu Ser Ser Gly
20 25 30
Asn Asp Pro Phe Thr Ile Val His Glu Asn Thr Gly Lys Cys Ile Gln
35 40 45
Pro Leu Ser Asp Trp Val Val Ala Gln Asp Cys Ser Gly Thr Asn Asn
50 55 60
Met Leu Trp Lys Trp Val Ser Gln His Arg Leu Phe His Leu Glu Ser
65 70 75 80
Gln Lys Cys Leu Gly Leu Asp Ile Thr Lys Ala Thr Asp Asn Leu Arg
85 90 95
Met Phe Ser Cys Asp Ser Thr Val Met Leu Trp Trp Lys Cys Glu His
100 105 110
His Ser Leu Tyr Thr Ala Ala Gln Tyr Arg Leu Ala Leu Lys Asp Gly
115 120 125
Tyr Ala Val Ala Asn Thr Asn Thr Ser Asp Val Trp Lys Lys Gly Gly
130 135 140
Ser Glu Glu Asn Leu Cys Ala Gln Pro Tyr His Glu Ile Tyr Thr Arg
145 150 155 160
Asp Gly Asn Ser Tyr Gly Arg Pro Cys Glu Phe Pro Phe Leu Ile Gly
165 170 175

Glu Thr Trp Tyr His Asp Cys Ile His Asp Glu Asp His Ser Gly Pro
180 185 190
Trp Cys Ala Thr Thr Leu Ser Tyr Glu Tyr Asp Gln Lys Trp Gly Ile
195 200 205
Cys Leu Leu Pro Glu Ser Gly Cys Glu Gly Asn Trp Glu Lys Asn Glu
210 215 220
Gln Ile Gly Ser Cys Tyr Gln Phe Asn Asn Gln Glu Ile Leu Ser Trp
225 230 235 240
Lys Glu Ala Tyr Val Ser Cys Gln Asn Gln Gly Ala Asp Leu Leu Ser
245 250 255
Ile His Ser Ala Ala Glu Leu Ala Tyr Ile Thr Gly Lys Glu Asp Ile
260 265 270
Ala Arg Leu Val Trp Leu Gly Leu Asn Gln Leu Tyr Ser Ala Arg Gly
275 280 285
Trp Glu Trp Ser Asp Phe Arg Pro Leu Lys Phe Leu Asn Trp Asp Pro
290 295 300
Gly Thr Pro Val Ala Pro Val Ile Gly Gly Ser Ser Cys Ala Arg Met
305 310 315 320
Asp Thr Glu Ser Gly Leu Trp Gln Ser Val Ser Cys Glu Ser Gln Gln
325 330 335
Pro Tyr Val Cys Lys Lys Pro Leu Asn Asn Thr Leu Glu Leu Pro Asp
340 345 350
Val Trp Thr Tyr Thr Asp Thr His Cys His Val Gly Trp Leu Pro Asn
355 360 365
Asn Gly Phe Cys Tyr Leu Leu Ala Asn Glu Ser Ser Ser Trp Asp Ala
370 375 380
Ala His Leu Lys Cys Lys Ala Phe Gly Ala Asp Leu Ile Ser Met His
385 390 395 400
Ser Leu Ala Asp Val Glu Val Val Val Thr Lys Leu His Asn Gly Asp
405 410 415
Val Lys Lys Glu Ile Trp Thr Gly Leu Lys Asn Thr Asn Ser Pro Ala
420 425 430
Leu Phe Gln Trp Ser Asp Gly Thr Glu Val Thr Leu Thr Tyr Trp Asn
435 440 445
Glu Asn Glu Pro Ser Val Pro Phe Asn Lys Thr Pro Asn Cys Val Ser
450 455 460
Tyr Leu Gly Lys Leu Gly Gln Trp Lys Val Gln Ser Cys Glu Lys Lys
465 470 475 480
Leu Arg Tyr Val Cys Lys Lys Gly Glu Ile Thr Lys Asp Ala Glu
485 490 495
Ser Asp Lys Leu Cys Pro Pro Asp Glu Gly Trp Lys Arg His Gly Glu
500 505 510
Thr Cys Tyr Lys Ile Tyr Glu Lys Glu Ala Pro Phe Gly Thr Asn Cys
515 520 525
Asn Leu Thr Ile Thr Ser Arg Phe Glu Gln Glu Phe Leu Asn Tyr Met
530 535 540
Met Lys Asn Tyr Asp Lys Ser Leu Arg Lys Tyr Phe Trp Thr Gly Leu
545 550 555 560
Arg Asp Pro Asp Ser Arg Gly Glu Tyr Ser Trp Ala Val Ala Gln Gly
565 570 575
Val Lys Gln Ala Val Thr Phe Ser Asn Trp Asn Phe Leu Glu Pro Ala
580 585 590
Ser Pro Gly Gly Cys Val Ala Met Ser Thr Gly Lys Thr Leu Gly Lys
595 600 605
Trp Glu Val Lys Asn Cys Arg Ser Phe Arg Ala Leu Ser Ile Cys Lys
610 615 620
Lys Val Ser Glu Pro Gln Glu Pro Glu Glu Ala Ala Pro Lys Pro Asp

625	630	635	640
Asp Pro Cys Pro Glu Gly Trp His Thr Phe Pro Ser Ser Leu Ser Cys			
645	650	655	
Tyr Lys Val Phe His Ile Glu Arg Ile Val Arg Lys Arg Asn Trp Glu			
660	665	670	
Glu Ala Glu Arg Phe Cys Gln Ala Leu Gly Ala His Leu Pro Ser Phe			
675	680	685	
Ser Arg Arg Glu Glu Ile Lys Asp Phe Val His Leu Leu Lys Asp Gln			
690	695	700	
Phe Ser Gly Gln Arg Trp Leu Trp Ile Gly Leu Asn Lys Arg Ser Pro			
705	710	715	720
Asp Leu Gln Gly Ser Trp Gln Trp Ser Asp Arg Thr Pro Val Ser Ala			
725	730	735	
Val Met Met Glu Pro Glu Phe Gln Gln Asp Phe Asp Ile Arg Asp Cys			
740	745	750	
Ala Ala Ile Lys Val Leu Asp Val Pro Trp Arg Arg Val Trp His Leu			
755	760	765	
Tyr Glu Asp Lys Asp Tyr Ala Tyr Trp Lys Pro Phe Ala Cys Asp Ala			
770	775	780	
Lys Leu Glu Trp Val Cys Gln Ile Pro Lys Gly Ser Thr Pro Gln Met			
785	790	795	800
Pro Asp Trp Tyr Asn Pro Glu Arg Thr Gly Ile His Gly Pro Pro Val			
805	810	815	
Ile Ile Glu Gly Ser Glu Tyr Trp Phe Val Ala Asp Pro His Leu Asn			
820	825	830	
Tyr Glu Glu Ala Val Leu Tyr Cys Ala Ser Asn His Ser Phe Leu Ala			
835	840	845	
Thr Ile Thr Ser Phe Thr Gly Leu Lys Ala Ile Lys Asn Lys Leu Ala			
850	855	860	
Asn Ile Ser Gly Glu Glu Gln Lys Trp Trp Val Lys Thr Ser Glu Asn			
865	870	875	880
Pro Ile Asp Arg Tyr Phe Leu Gly Ser Arg Arg Arg Leu Trp His His			
885	890	895	
Phe Pro Met Thr Phe Gly Asp Glu Cys Leu His Met Ser Ala Lys Thr			
900	905	910	
Trp Leu Val Asp Leu Ser Lys Arg Ala Asp Cys Asn Ala Lys Leu Pro			
915	920	925	
Phe Ile Cys Glu Arg Tyr Asn Val Ser Ser Leu Glu Lys Tyr Ser Pro			
930	935	940	
Asp Pro Ala Ala Lys Val Gln Cys Thr Glu Lys Trp Ile Pro Phe Gln			
945	950	955	960
Asn Lys Cys Phe Leu Lys Val Asn Ser Gly Pro Val Thr Phe Ser Gln			
965	970	975	
Ala Ser Gly Ile Cys His Ser Tyr Gly Gly Thr Leu Pro Ser Val Leu			
980	985	990	
Ser Arg Gly Glu Gln Asp Phe Ile Ile Ser Leu Leu Pro Glu Met Glu			
995	1000	1005	
Ala Ser Leu Trp Ile Gly Leu Arg Trp Thr Ala Tyr Glu Arg Ile Asn			
1010	1015	1020	
Arg Trp Thr Asp Asn Arg Glu Leu Thr Tyr Ser Asn Phe His Pro Leu			
1025	1030	1035	1040
Leu Val Gly Arg Arg Leu Ser Ile Pro Thr Asn Phe Phe Asp Asp Glu			
1045	1050	1055	
Ser His Phe His Cys Ala Leu Ile Leu Asn Leu Lys Lys Ser Pro Leu			
1060	1065	1070	
Thr Gly Thr Trp Asn Phe Thr Ser Cys Ser Glu Arg His Ser Leu Ser			
1075	1080	1085	

Leu Cys Gln Lys Tyr Ser Glu Thr Glu Asp Gly Gln Pro Trp Glu Asn
1090 1095 1100
Thr Ser Lys Thr Val Lys Tyr Leu Asn Asn Leu Tyr Lys Ile Ile Ser
1105 1110 1115 1120
Lys Pro Leu Thr Trp His Gly Ala Leu Lys Glu Cys Met Lys Glu Lys
1125 1130 1135
Met Arg Leu Val Ser Ile Thr Asp Pro Tyr Gln Gln Ala Phe Leu Ala
1140 1145 1150
Val Gln Ala Thr Leu Arg Asn Ser Ser Phe Trp Ile Gly Leu Ser Ser
1155 1160 1165
Gln Asp Asp Glu Leu Asn Phe Gly Trp Ser Asp Gly Lys Arg Leu Gln
1170 1175 1180
Phe Ser Asn Trp Ala Gly Ser Asn Glu Gln Leu Asp Asp Cys Val Ile
1185 1190 1195 1200
Leu Asp Thr Asp Gly Phe Trp Lys Thr Ala Asp Cys Asp Asp Asn Gln
1205 1210 1215
Pro Gly Ala Ile Cys Tyr Tyr Pro Gly Asn Glu Thr Glu Glu Val
1220 1225 1230
Arg Ala Leu Asp Thr Ala Lys Cys Pro Ser Pro Val Gln Ser Thr Pro
1235 1240 1245
Trp Ile Pro Phe Gln Asn Ser Cys Tyr Asn Phe Met Ile Thr Asn Asn
1250 1255 1260
Arg His Lys Thr Val Thr Pro Glu Glu Val Gln Ser Thr Cys Glu Lys
1265 1270 1275 1280
Leu His Pro Lys Ala His Ser Leu Ser Ile Arg Asn Glu Glu Asn
1285 1290 1295
Thr Phe Val Val Glu Gln Leu Leu Tyr Phe Asn Tyr Ile Ala Ser Trp
1300 1305 1310
Val Met Leu Gly Ile Thr Tyr Glu Asn Asn Ser Leu Met Trp Phe Asp
1315 1320 1325
Lys Thr Ala Leu Ser Tyr Thr His Trp Arg Thr Gly Arg Pro Thr Val
1330 1335 1340
Lys Asn Gly Lys Phe Leu Ala Gly Leu Ser Thr Asp Gly Phe Trp Asp
1345 1350 1355 1360
Ile Gln Ser Phe Asn Val Ile Glu Glu Thr Leu His Phe Tyr Gln His
1365 1370 1375
Ser Ile Ser Ala Cys Lys Ile Glu Met Val Asp Tyr Glu Asp Lys His
1380 1385 1390
Asn Gly Thr Leu Pro Gln Phe Ile Pro Tyr Lys Asp Gly Val Tyr Ser
1395 1400 1405
Val Ile Gln Lys Lys Val Thr Trp Tyr Glu Ala Leu Asn Ala Cys Ser
1410 1415 1420
Gln Ser Gly Gly Glu Leu Ala Ser Val His Asn Pro Asn Gly Lys Leu
1425 1430 1435 1440
Phe Leu Glu Asp Ile Val Asn Arg Asp Gly Phe Pro Leu Trp Val Gly
1445 1450 1455
Leu Ser Ser His Asp Gly Ser Glu Ser Ser Phe Glu Trp Ser Asp Gly
1460 1465 1470
Arg Ala Phe Asp Tyr Val Pro Trp Gln Ser Leu Gln Ser Pro Gly Asp
1475 1480 1485
Cys Val Val Leu Tyr Pro Lys Gly Ile Trp Arg Arg Glu Lys Cys Leu
1490 1495 1500
Ser Val Lys Asp Gly Ala Ile Cys Tyr Lys Pro Thr Lys Asp Lys Lys
1505 1510 1515 1520
Leu Ile Phe His Val Lys Ser Ser Lys Cys Pro Val Ala Lys Arg Asp
1525 1530 1535
Gly Pro Gln Trp Val Gln Tyr Gly Gly His Cys Tyr Ala Ser Asp Gln

1540	1545	1550
Val Leu His Ser Phe Ser Glu Ala Lys Gln Val Cys Gln	Glu Leu Asp	
1555	1560	1565
His Ser Ala Thr Val Val Thr Ile Ala Asp Glu Asn Glu Asn Lys Phe		
1570	1575	1580
Val Ser Arg Leu Met Arg Glu Asn Tyr Asn Ile Thr Met Arg Val Trp		
1585	1590	1595
Leu Gly Leu Ser Gln His Ser Leu Asp Gln Ser Trp Ser Trp Leu Asp		1600
1605	1610	1615
Gly Leu Asp Val Thr Phe Val Lys Trp Glu Asn Lys Thr Lys Asp Gly		
1620	1625	1630
Asp Gly Lys Cys Ser Ile Leu Ile Ala Ser Asn Glu Thr Trp Arg Lys		
1635	1640	1645
Val His Cys Ser Arg Gly Tyr Ala Arg Ala Val Cys Lys Ile Pro Leu		
1650	1655	1660
Ser Pro Asp Tyr Thr Gly Ile Ala Ile Leu Phe Ala Val Leu Cys Leu		
1665	1670	1675
Leu Gly Leu Ile Ser Leu Ala Ile Trp Phe Leu Leu Gln Arg Ser His		1680
1685	1690	1695
Ile Arg Trp Thr Gly Phe Ser Ser Val Arg Tyr Glu His Gly Thr Asn		
1700	1705	1710
Glu Asp Glu Val Met Leu Pro Ser Phe His Asp		
1715	1720	